MINUTES OF PUBLIC SCHOOL FACILITIES
DIVISIONS 10-12 SUBCOMMITTEE
Office of School Facilities
3710 Landmark Drive, Suite 205
Columbia, South Carolina

May 17, 2005
10:00 a.m.

Voting Subcommittee Members Present were: Miles Jordan, Chair, Howard Coogler, Dan Reider

Advisory Members and others present were: Manuel Hendrix, Steven Jenkins, LeVern Murray, Cole Owens, Dennis Knight, David Blackwell, Joan Smith, and Shonda Johnson-Pooser

Absent were: Mark Arrington, Jamie Spears

OPENING
Miles Jordan opened the SC Public School Facilities Division 10-12 Subcommittee meeting by welcoming everyone and beginning discussion of proposed changes.

DISCUSSION/BUSINESS
Discussion began regarding the removal of the maintained lighting level requirement from the chart in Section 1204.1.1. Currently, the minimum initial design level is "70 foot-candles, 50 foot-candles (maintained)." After a brief discussion, Howard Coogler made a Motion to remove the words **"50 foot-candles (maintained)."** Mr. Jordan Seconded the Motion, which unanimously passed.

Mr. Jordan presented information from Mr. Edward Hartzog, Director of ETV Technical Services that changes some wording to Section 1212 to include changes from ETV specs. Mr. Hartzog proposed to add the paragraph **"Section 1212.4 The engineer shall refer to the specifications and details, as approved by the South Carolina Educational Television Network, for the layout and design of ETV systems. These can be found on the SCETV website."** Also, under Section 1212.2, he would like the title of the Field Technical Services Advisor changed to **"Network Technical Services Director."** Mr. Jordan clarified that as long as there is a reference to SCETV standards, this Guide would not need to be altered for every change to the SCETV standards. Mr. Coogler made a Motion to accept the two changes listed, Mr. Reider Seconded. Motion passed.

The next issue presented, proposed the addition of guidelines for classroom noise levels. There has been a great concern regarding HVAC noise and background noise levels in classrooms. Ultimately, it is difficult to measure what the noise level should be and the costs associated with changing HVAC systems is high. Ms. Joan Smith stated most teachers turn the system off so that students can hear. After a lengthy discussion, the members decided that they needed more information before they can make a change.

The members felt the architect should address this problem because acoustics plays an important part in determining noise levels. Mr. Coogler made the Motion to refer this issue to Division 3 and work with that subcommittee to implement a requirement, Seconded by Mr. Jordan and unanimously passed.

The next issue presented is for clarification of ASHRAE 90.1 requirements for lighting controls. According to ASHRAE, you must have either an automatic lighting control system that is occupancy sensitive or time sensitive. (Time sensitive lighting controls must have overrides from every space with wall to ceiling partitions). Mr. Jordan would like to see a zone override which would shut off a wing at a time. After discussion about auto shut-off and switches, Mr. Coogler made a suggestion to make a change with ASHRAE. Mr. Jordan made a Motion to add a sentence to Section 1204.2.3 to read as follows, **"Automatic lighting control shut-off shall not be required in areas that have two or fewer luminaries."** Mr. Coogler Seconded the Motion. Motion passed.

Mr. Jordan then presented information regarding new fire sprinkler requirements, which is the result of a meeting with the State Fire Marshal's Office, OSF, and the Engineering Subcommittee. A discussion began regarding the meaning of a "reliable source." Mr. Blackwell suggested writing a letter to the State Fire Marshal asking for the policy regarding a "reliable source." Mr. Jordan made a Motion to accept the proposal with an amendment removing Section 1108.7.1. Mr. Reider Seconded the Motion. No vote was taken and more discussion ensued. There was a suggestion to amend another sentence in the proposal where sprinkler heads shall be installed in "built-in" display cases that are over 100 square feet. Some members felt the minimum square footage was too large. Mr. Jordan made the Motion to accept the following with amendments:

"1108.5 Underground Fire Service to Buildings

1108.5.1 Each fire line serving a riser assembly shall contain either a free standing post indicator valve, or a wall indicator valve visible from the outside of the building. These above grade valves shall be provided with tamper switches connected to the building fire alarm.

1108.5.2 The use of locks and chains for tamper prevention in lieu of tamper switches is acceptable below grade provided the valve pit has secured (locked) access, and weather-proof signage is displayed which reads, 'If valve(s) are closed for any reason, contact the local fire department (by name) immediately (ph#xxx-xxx-xxxx)," where x denotes the local, non-alarm number.

1108.6 Design Requirements

1108.6.1 The following spaces shall be protected at a minimum hazard classification of Ordinary Group I:

Secondary school laboratories and preparation rooms, computer labs (rooms containing 30 or more computers), office/administrative areas, vocational labs, kitchens, storage areas, mechanical equipment areas, electrical rooms, coolers, and freezers. Note that sprinklers may be omitted from

electrical rooms, when the room meets all the necessary exception requirements from NFPA 13, including being enclosed by a 2-hour rated construction.

1108.6.2 Heat producing mechanical equipment (compressors, electric heating strips, etc.) located in non-combustible, concealed spaces (including ceiling plenum and attic spaces) of sprinklered buildings must have sprinkler protection. If the equipment is not enclosed by walls that impede the flow of heat, the sprinkler coverage must extend at least 15 feet horizontally, beyond the outline of the equipment.

1108.6.3 Sprinkler heads shall be installed in "built-in" display cases that are over 24 square feet.

1108.7 Materials and Installation

1108.7.1 Fire sprinkler systems that are installed utilizing an electric fire pump shall be connected to an emergency generator to provide a reliable source of power or the engineer of record shall provide documentation from the utility company demonstrating reliability of the system over the last 24-month period.

1108.7.2 Fire pump controllers shall be provided with a factory installed integral automatic power transfer switch for connection to the building emergency generator. Limited service fire pump controllers are not acceptable.

1108.7.3 Each system riser shall contain an alarm check valve. "Shotgun" risers or risers that utilize the backflow prevention device as the system check are not acceptable.

1108.7.4 Above ground piping shall be metallic in accordance with NFPA 13.

1108.7.5 Quick response type sprinkler heads shall not be used in coolers and freezers.

1108.7.6 Oversized, metallic escutcheons for sprinkler heads shall be provided in seismic suspended ceilings as required by the IBC.

1108.7.7 The fire sprinkler system seismic restraint system shall be designed with a minimum importance factor of 1.5 as designated by the structural design chapter of the IBC."

Howard Coogler Seconded the Motion, which unanimously passed.

Mr. Jordan made the suggestion to add "Section 1205.1.5 Fume Hoods (only when generator is used." This will show that fume hoods need to have an emergency power source only when powered by a generator. After brief discussion, Mr. Jordan made the Motion to make a recommendation to the Division 3 subcommittee to add language to require signage for fume hoods. Mr. Coogler Seconded the Motion. Motion passed with one opposition by Mr. Reider.

Mr. Jordan stated that there was a request to add requirements or recommends for the use of waterless urinals. All committee members felt there should not be a recommendation

in the Guide for this issue. This does not mean that waterless urinals are prohibited, however this subcommittee does not want to establish requirements for this issue.

Mr. Coogler made a proposal to add water temperature requirements for schools that offer infant and Pre-K care. The subcommittee decided that this issue is already addressed in IBC and there was no need to include this requirement in the Guide. Item tabled.

The following issue presented by Mr. Coogler referred to sewer systems, spray fields and drip systems. There was a question whether to add requirements to Division 10 of the Guide. After brief discussion, the committee felt there was no need to add any verbiage to the Guide as long as the system is approved by DHEC.

Mr. Jordan presented an item that would revise Section 1006.4.2 by deleting all reference to PVC. Mr. Jordan made the Motion to remove the sentence, **"PVC pipe shall not be used within fire-rated floor, wall, or ceiling systems where combustibles are prohibited."** Mr. Reider Seconded the Motion. Motion unanimously passed.

Mr. Coogler presented an item to require duct detectors in all systems over 2000 cfm. The subcommittee decided this issue did not need to be addressed in the Guide. This issue already addressed in the Mechanical Code.

Mr. Coogler presented an item calling for clarification of ventilation rates – IMC or ASHRAE. According to the Guide ventilation rates are as required by IMC. Mr. Coogler felt ASHRAE allowed several alternate means whereas IMC specifically says 15 cfm per person. After brief discussion the subcommittee members felt ASHRAE would be a better reference. Mr. Jordan made the Motion to delete the last sentence of Section 1105.4, Mr. Coogler Seconded, and Motion passed.

Mr. Coogler presented an issue to clarify emergency and standby power system requirements. There are a few schools where the utility company will offer a special rate if a standby generator is used during peak hours. His concern is if there is an emergency there may not be a generator available to evacuate the school. A lengthy discussion ensued and the item was tabled. The members saw no need to make a change to the Guide.

The next item on the agenda is to restrict the use of modular light fixture wiring systems. A brief discussion ensued and the members determined there was no need to change the Guide.

The next proposal listed will add a requirement for smoke detectors at all fire alarm panels. NFPA 72 already addresses this issue. No change to the Guide.

Mr. Jordan presented an issue raised by Mr. Jamie Spears to revise requirements for allowing condensate to drip to grade. Mr. Coogler does not feel condensate should drip

to grade and result in standing water. After brief discussion, the members decided not to make a change to the Guide.

Mr. Jordan allowed Mr. Jenkins to interject concerns over Section 1203.3 regarding existing building wiring. Mr. Jenkins requested clarification in the Section so that any new wiring system to an existing building must be put in a cable tray or conduit. Mr. Jordan made the Motion to add the following: **"Section 1203.3.12 Where cable trays exist, they shall be used for any additional wiring systems."** Mr. Reider Seconded and the Motion passed.

Mr. Jenkins also proposed clarification be added to the Guide as to when a fire alarm system is needed. Currently, the Guide provides language as to when certification is needed for a fire alarm system not when a system is needed. Mr. Coogler suggested that all new construction of 500 square feet or greater have a fire alarm system. After a brief discussion, Mr. Jordan made a Motion to add the following: **"Section 1208.1.3 A fire alarm system is required in any building over 500 square feet."** Mr. Coogler Seconded the Motion, which unanimously carried. OSF and the SC Fire Marshal's office will discuss whether the building would be certificated.

Mr. Jordan suggested that the last item regarding sprinkler requirements in assembly/educational spaces be tabled for further review. The other members suggested referring this issue to Division 3 for their input.

ADJOURNMENT

Miles Jordan brought the meeting to a close and thanked everyone for their input. The subcommittee meeting adjourned at 1:06 p.m.